

WORK INSTRUCTION		
Title: Repair/Replacement of Inner Containment Vessel (ICV) Upper/Lower Spacer Bracket(s)		
Instruction No. CH.17	Rev. 0.2, January 2004	Page 1 of 4
Approved for Use by: <u>Michael R. Brown</u> Effective Date: <u>January 2004</u>		
Applicable Drawings: <ul style="list-style-type: none"> • 2077-500SNP (Sheets 3 and 6) - TRUPACT-II Packaging SARP Drawings • 707-SAR (Sheet 3) - HalfPACT Packaging SARP Drawings 		
SARP Requirements: <ul style="list-style-type: none"> • None 		
Tools Required: <ul style="list-style-type: none"> • Small grinder • Welder (tungsten inert gas [TIG] preferred) • Calibrated ultrasonic thickness (UT) gauge • UT step block 		
Spare Parts (if required): <ul style="list-style-type: none"> • ICV upper spacer retaining bracket (PN 2077-186-02 or 2077-00010) • ICV lower spacer retaining bracket (PN 2077-183-02 or 2077-00009) 		
Materials Required: <ul style="list-style-type: none"> • Weld filler material per WIPP M&O approved weld procedure 		
Safety Requirements: <ul style="list-style-type: none"> • Safety will be observed in accordance with site requirements. 		
Prerequisite Conditions: <ul style="list-style-type: none"> • ICV must be open and spacer(s) removed (see WI-CH.13). • Welder must be qualified in accordance with Section IX of the ASME Code for the process being used. • Weld procedures and inspection procedures must be approved by the M&O contractor. • Preferred weld method is gas tungsten arc welding for A-240 stainless steel. 		
Instruction Steps: <ul style="list-style-type: none"> • Document all steps performed on the Data Sheet (Attachment 1), or attach an approved manufacturing traveler to the Data Sheet which documents the corresponding steps. • The completed Data Sheet MUST be attached to the Maintenance Record. 		

CAUTION: Be careful not to grind into the base metal of the vessel.

NOTE: If damaged bracket is per SAR Drawing 2077-500 SNP Option 1, contact CHME for guidance.

1.0 Indicate on attachment which bracket(s) is being repaired/replaced:

ICV Upper Spacer Bracket(s) #'s 1, 2, 3, 4, 5, or 6 (clockwise from vent port)

ICV Lower Spacer Bracket(s) #'s 1, 2, 3, 4, 5, or 6 (clockwise from vent port)

NOTE: While performing step 2.0, periodic UT measurements shall be taken to ensure wall thickness is greater than 0.250 in.

2.0 Remove old weld material as necessary by grinding.

3.0 Perform UT measurements on removed weld and surrounding base metal.

4.0 Record UT measurements on map and attach to Attachment 1.

5.0 Perform liquid penetrant inspection on surface(s) where material was removed to ASME Code, Section III, Division 1, Subsection NB, Article NB-5000, and Section V, Article 6.

NOTE: Bracket(s) may need to be trimmed to fit ICV upper and lower head prior to installation.

NOTE: The ICV upper and lower spacers shall meet or exceed the minimum height requirement specified in SARP drawings. Refer to WI-CH.13.

6.0 Fit bracket(s) to ICV and tack in place.

7.0 Verify the following minimum payload cavity height is maintained:

- TRUPACT-II - 74 $\frac{3}{4}$ in.
- HalfPACT - 44 $\frac{3}{4}$ in.

8.0 Record the weld procedure number, revision, and date.

9.0 Record the weld filler Certified Material Test Report (CMTR) number.

10.0 Complete the weld(s) on the bracket per the current revision of Drawing 2077-500-SNP, Sheet 3 of 11, Detail D, and Sheet 6 of 11, Detail V, or Drawing 707-SAR, Sheet 3, Detail P&S.

11.0 Perform visual inspection of the weld(s) to AWS D1.1.

12.0 Perform liquid penetrant inspection of the weld(s) to ASME Code, Section III, Division 1, Subsection NB, Article NB-5000, and Section V, Article 6.

NOTE: If step 13.0 is not applicable, mark as NA and **GO TO** step 14.0.

NOTE: While performing step 13.0, take periodic UT measurements to ensure wall thickness is maintained greater than 0.250 in.

13.0 If weld fails visual inspection or liquid penetrant inspection and weld repair is required, perform the following:

13.1 Excavate affected area.

13.2 Perform visual inspections of excavation.

13.3 Perform liquid penetrant inspection of excavation to ASME Code, Section III, Division 1, Subsection NB, Article NB-5000, and Section V, Article 6.

13.4 Perform UT measurement of excavated area and surrounding base metal.

13.5 Record UT measurements on map and attach to Attachment 1.

NOTE: The ICV upper and lower spacers shall meet or exceed the minimum height requirement specified in SARP drawings. Refer to WI-CH.13.

13.6 Fit new bracket(s) to ICV and tack in place.

13.7 Verify the following minimum payload cavity height is maintained:

- TRUPACT-II - 74 $\frac{3}{4}$ in.
- HalfPACT - 44 $\frac{3}{4}$ in.

13.8 Record the weld procedure number, revision, and date.

13.9 Record the weld filler CMTR number.

13.10 Complete weld(s) per the current revision of Drawing 2077-500-SNP, Sheet 3 of 11, Detail D, and Sheet 6 of 11, Detail V, or Drawing 707-SAR, Sheet 3, Detail P&S.

13.11 Perform visual inspection of the weld(s) to AWS D1.1.

13.12 Perform liquid penetrant inspection of weld(s) to ASME Code, Section III, Division 1, Subsection NB, Article NB-5000, and Section V, Article 6.

14.0 Attach a copy of the inspection report(s) to the traveler or Data Sheet.

ATTACHMENT 1 - DATA SHEET

Packaging Serial #: _____ Date: _____ Job No.: _____		
STEP	OPERATION	SIGN OFF Operator / Date
1.0	Check appropriate block(s) and circle appropriate number(s) <input type="checkbox"/> ICV Upper Spacer Bracket # 1, 2, 3, 4, 5, or 6 <input type="checkbox"/> ICV Lower Spacer Bracket # 1, 2, 3, 4, 5, or 6	QC
2.0	Old material removed.	Fab
4.0	UT measurements recorded and map attached.	QC
5.0	Liquid penetrant inspection performed. Report #: _____	QC
7.0	Minimum height verified.	QC
8.0	Weld procedure number, revision, and date recorded. _____/_____/_____	Fab
9.0	Filler CMTR number recorded. _____	QC
10.0	Welds complete.	Fab
11.0	Visual inspection performed. Report #: _____	QC
12.0	Liquid penetrant inspection performed. Report #: _____	QC
13.2	Visual inspections of excavation performed. Report #: _____	QC
13.3	Liquid penetrant inspection performed. Report #: _____	QC
13.5	UT measurements recorded and map attached.	QC
13.7	Minimum height verified.	QC
13.8	Weld procedure number, revision, and date recorded. _____/_____/_____	Fab
13.9	Filler CMTR number recorded. _____	Fab
13.10	Weld completed.	Fab
13.11	Visual inspections performed. Report #: _____	QC
13.12	Liquid penetrant inspection performed. Report #: _____	QC
14.0	Inspection reports attached.	QC